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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,136	03/31/2004	Akinori Shibuya	Q80850	3725

23373 7590 06/15/2005  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER
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THORNTON, YVETTE C

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/813,136

Applicant(s)

SHIBUYA, AKINORI

Examiner

Yvette C. Thornton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12292004, 06302004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This is written in reference to application number 10/813,136 filed on March 31, 2004 and published as US 2004/0191679 A1 on September 30, 2004.

#### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### *Information Disclosure Statement*

2. The Information Disclosure Statement(s) filed on June 30, 2004 and December 29, 2004 has/(have) been entered and fully considered.

#### *Double Patenting*

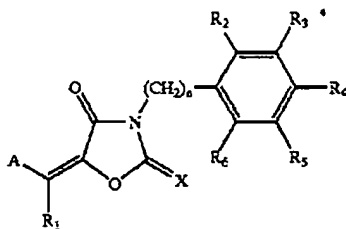
3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/838,316 [Shibuya]. Although the conflicting claims are not identical, they are not patentably distinct from each other because both pertain to a compound represented by formula (1)

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wherein A is an aromatic or heterocyclic ring which may have a substituent, X is O, S or NR<sub>7</sub>. The claims further pertain to a photosensitive composition comprising (i) a sensitizing dye of said formula (1), (ii) an activator compound, and (iii) a compound changing its physical or chemical property. One of ordinary skill in the art would have been motivated by the claims of Shibuya to make a composition comprising a compound of formula (1).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

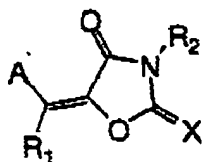
#### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

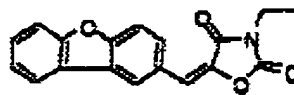
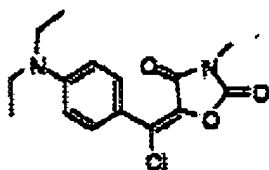
6. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Murota et al. (EP 1048982 A1). Murota teaches a photopolymerizable composition comprising (I) a sensitizing dye



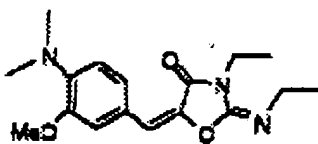
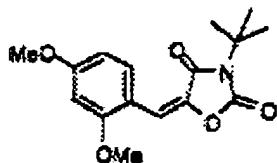
represented by formula (III-1), (II) a titanocene compound and (III) a compound which reacts with at least either a radical or acid to change and retain at a physical or chemical characteristics. In formula (III-1), A is an aromatic or heterocyclic ring, which may have a substituent; X is O, S or N(R<sub>3</sub>); R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> each represents a hydrogen atom or a monovalent non-metallic atomic

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group (p. 0018). Murota teaches that R1, R2 and R3 preferred examples of the aryl groups include phenyl and naphthyl (p. 0140-0141). It is the examiner's position that when X is NR3 and R3 is the preferred phenyl or naphthyl group, the limitations of claimed formula (3) are met. Specific examples of the said



formula (III-1) include:



(D19) and

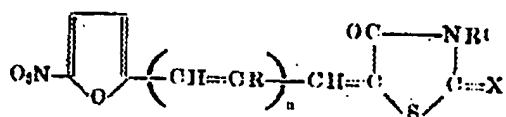
(D27) (p. 0142-0145). Compound

D27 meets the limitations of claimed formula (2).

7. Example I-3 exemplifies a composition comprising pentaerythritol tetraacrylate (claimed component C); allymethacrylate/methacrylic acid copolymer (claimed component D); sensitizing dye (D2) (claimed component A); a titanocene compound (T2) (claimed component B); and a co-sensitizer (H-2) (claimed component E-1) (p. 0235, Table I-1). See also example I-5, I-7, I-8, II-1, II-7, II-10, II-11, II-15, III-2, III-8 and III-10 and claims 5-7.

8. *The examiner notes that US 6335144 B1 is the US equivalent of the cited reference to Murota. The said reference is also applicable under 35 USC 102(b). However for the sake of brevity, duplicates rejections will not be made herewith.*

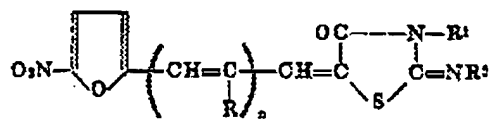
9. Claim 4 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Mousseron (US 3678041 A). Mousseron teaches a 5-substituted thiazolidine-4-one having the formula



(abstract). The said compound meets the limitations of the

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instant claim when  $n=0$ ,  $X=O$ ,  $S$  or  $NR_2$  wherein  $R_2$  is a hydrogen, an alkyl, alkenyl, cycloalkyl, aryl, aralkyl or arylsulfonyl group. Table III exemplifies a compound having the following formula

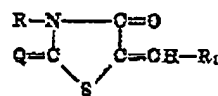


. Example 29, code 10986 exemplifies the said compound

wherein  $n=0$ ,  $R_1$  is phenyl and  $R_2$  is phenyl.

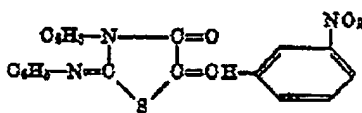
10. Claim 4 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sawdey (US 2739888

A). Sawdey teaches compound of general formula (I)

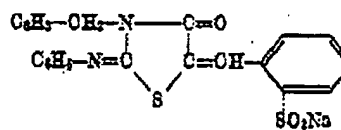


(c. 1, l. 66-70). Specific

examples include:



and

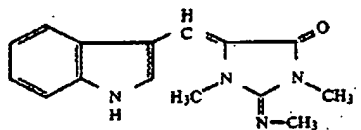


(see c. 3-5).

11. Claim 4 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wells (US 4195179

A). Wells teaches 5-(indol-3-ylmethylene)-1,3-dimethyl-2-methylimino-4-imidazolidinone compounds

having the formula



(Z isomer). See c. 1, l. 15-30 and c. 2, l. 10-15.

### Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette C. Thornton whose telephone number is 571-272-1336. The examiner can normally be reached on Monday-Thursday 8-6:30.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Yvette Clarke Thornton  
Primary Examiner  
Art Unit 1752

yct  
June 11, 2005